

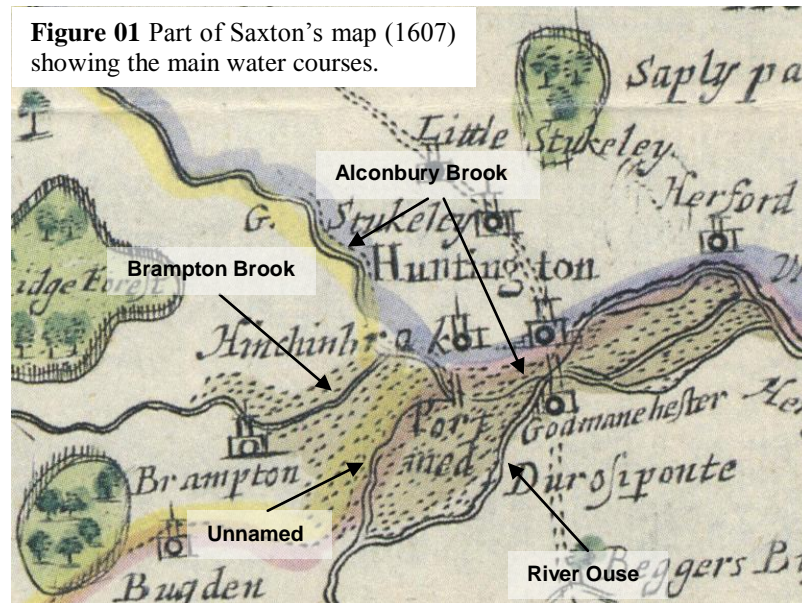
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## Portholme Meadow, Brampton Parish History and Natural History

by Dr J Patrick Doody, Brampton

**Introduction.** Portholme Meadow is a large, unenclosed river flood plain meadow, bordered on two sides by the River Great Ouse in the Parish of Brampton, in Cambridgeshire. It is mostly at or below the Ordnance Survey, ten metre contour and is regularly flooded in winter. It has a rich history of human use for hay, sheep and cattle grazing, as a racecourse and an airfield. With an area of 104 ha, it represents 7% of the total UK lowland unimproved hay meadows. It supports a rich flora and is a haven for a number of less common breeding birds in summer (e.g. corn bunting and skylark) now absent from much of the more intensively farmed Cambridgeshire landscape. It also supports large populations of ducks, waders and gulls when flooded in winter. It is a Site of Special Scientific Interest and recognised internationally as a Special Area of Conservation under the European Union 'Habitats' Directive.

**Geology.** Portholme Meadow lies over a bed of calcareous Oxford Clay deposited some 160 million years ago during the Jurassic Period (the Age of the Dinosaurs). This layer can be up to 70 m thick in places. One of the most extensive glaciations, the Anglian Glaciation, stretched as far south as London. Lasting from about 500,000 to 425,000 years ago, the ice was up to 1,000 metres thick in the north. During periods when the ice melted, sand and gravel washed into the river valley to create the deep bed of gravel and mixed deposits, which underlie the meadow today.



**Figure 01** Part of Saxton's map (1607) showing the main water courses.

**Location.** Saxton's map of Huntingdon clearly shows the route of the River Great Ouse and the location of "Port Med". Although control of the water courses today is the responsibility Environment Agency, they remain largely in the same position as shown in 1607 (Figure 01).

**Historical Management.** Neolithic people settled in the river valleys such as the Great Ouse, where the underlying gravel helped to create

soils more suitable for farming than the heavily wooded clays that surrounded them. There are Neolithic remains reported from several sites around Portholme (Archaeology sites in Huntingdon, source The Huntingdonshire Forum web site). It is possible the river provided access to the sea, even though it was 60 km away. Perhaps the name 'Port med' derives from this. There is anecdotal evidence that there was a Viking 'staithe' above Alconbury Brook, just before it flows into the River Ouse.

*Dark Ages to 1066.* In the period following the invasion of the Vikings, Huntingdon became a Saxon borough. The creation of a complicated channel system between Portholme Meadow and Godmanchester took place at that time. This provided a head of water for a succession of water mills. Control of the water system in and around Portholme thus appears to have a very early origin. There is no reference to Portholme in the Domesday Book though it does mention 2 mills in Brampton and 3 in Godmanchester.

*The last Millennium.* The first written reference to the management of Portholme is that of King John, who in 1212 granted a charter of Common Rights. This charter prevented the area being divided, developed or enclosed and imposed strict rules as to its use. For example, animals were not allowed onto the ground until "Stocking Day" the 13th May, when the herd's boy of each common patrolled the streets at 4.00 am blowing a cow's horn. This suggests grazing in the summer rather than winter as occurs today.

It seems possible that at that time, the meadow flooded during winter months making access difficult and dangerous, due to the combined effects of high levels of precipitation and tidal inundation. Blauwe's map of 1643 shows the Wash and the Fenland Basin before the major works to straighten the river Ouse and facilitate drainage of the surrounding 'fen' land, began in 1634 by Cornelius Vermuyden and others. Land shown as swampland on the map and apparently influenced by the tide, stretch beyond Portholme to Brampton. The drainage works cut off the influence of the tidal water to the River Ouse above Earith Bridge, probably leading to reduced flooding in winter months on Portholme.

Pepys the famous diarist lived for some time in Brampton. One of four entries in his diary gives an indication of the management at that time:

- 13th October 1662. "... and with my father took a melancholy walk to Portholme, seeing the country-maids milking their cows there, they being there now at grass, and to see with what mirth they come all home together in pomp with their milk, and sometimes they have musique go before them."

*Enclosure Acts.* Portholme was common land and several houses in Brampton held rights to graze animals. The land surveys for the enclosure acts took place in Brampton Parish in 1772, and included a map of Portholme, (County Records Office, Huntingdon). This map shows land ownership in both large plots (e.g. Lord Sandwich who owned approximately 158 acres) and narrow strips apportioned to people in Brampton village (e.g. Mr Hugh Palmer and Theo Jarvis who both owned just over one acre each). Several strips (three acres) assigned, as "Town Ground" may have been associated with the

village, or perhaps Huntingdon. Extracts from the Brampton Enclosure Act include detailed reference to management on Portholme ‘stints’ as follows:

*“.....subject nevertheless to the rules orders and directions hereinafter mentioned that is to say that the said meadow called Port Holme shall be opened for cows and horses from the first day of Sept and shut on the 20 Nov in every year and that it shall not be lawful for any commoners or occupiers of right of common upon the same meadow and after the said 20 Nov till the said 1 Sept to turn feed or depasture any cows or horses thereafter. And also that the said meadow shall be opened to sheep on the 21 November in every year and shut on the 1 February both inclusive and that it shall not be lawful for any of the owners or occupiers of common rights upon the sd meadow from and after the sd 1 Feb till the sd 21 Nov to turn feed or depasture any sheep thereon.”*

**Race days at Portholme.** Some of the earliest records of racing, as we know it, were at Huntingdon from 1607, although these may have been near Sapley. The first edition of the Racing Calendar in 1773 details flat races run on Portholme, and it appears racing was already well established by then. Horace Walpole, writing in 1760, described the Huntingdon races as more than a little local affair. They ranked with the Derby as one of the nation’s fashionable events of the year. It appears that the meetings went from strength to strength and by 1824 were probably as important “as any in England”.

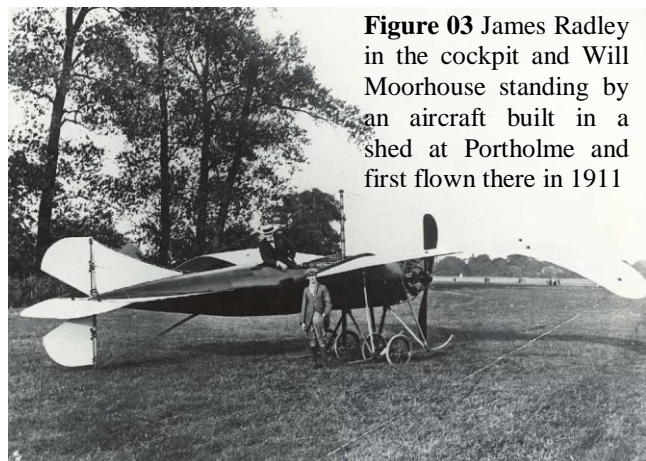
**Figure 02.** Location of Port Holme racecourse from a revised OS map of 1835



The Portholme circuit was two miles in circumference and appears on several maps; see for example OS map of 1835 (Figure 02). The races began on the first Tuesday in August each year and continued for 3 days. The course had grandstands, footbridges and facilities for other activities - included fairgrounds, cockfighting, boxing etc. A picture by Wooll, held at the Norris Museum in St Ives shows a grandstand ‘on stilts’. Flat racing under Jockey Club rules

took place here for more than 200 years, until it apparently went downhill due to lack of interest. It last appeared in the racing calendar in 1896 (Hudson 1985).

**Aviators.** At the beginning of the 20<sup>th</sup> Century, Portholme became a mecca for early attempts at flight, its flat terrain being perfect for take off and landing. The first flights took place in 1910 by James Radley of Bedford (Figure 03). After several trials, he



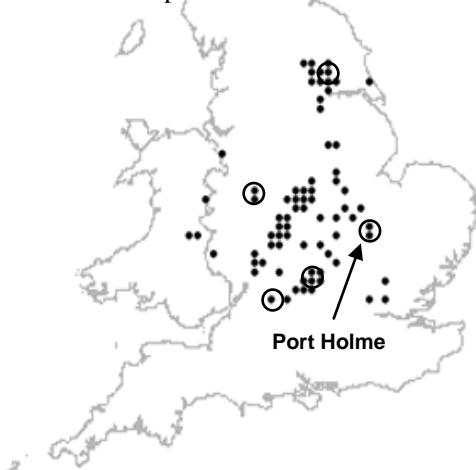
**Figure 03** James Radley in the cockpit and Will Moorhouse standing by an aircraft built in a shed at Portholme and first flown there in 1911

eventually flew the circular course, covering a total of 16½ miles at a height of 40ft in 23 minutes 55 seconds (average speed 42 m.p.h.). By May, the aviators had left and the meadow was ‘put down for hay’. In 1910, only one year after Bleriot’s cross-channel flight, proposals were made that Portholme be established as “an aviation course” (Buist 1992). Although flying continued this was largely for practice and flying display proposals were left in abeyance. The cost of leasing the field, flooding and the need to protect the hay crop all worked against the proposals.

A Port Holme Aviation Company made a small number of aeroplanes but by 1912 went out of business. Despite a brief respite in the Great War, when the Admiralty ordered several seaplanes, these were not a success. In the years of the Great War and up until the early 1930s, the Royal Flying Corps used Portholme. At one time, there were proposals that the site become an airport. Thankfully, the periodic flooding, so important to the maintenance of the nature conservation interest, made it less than suitable for this activity also.

**Vegetation of lowland hay meadows.** The communities associated with lowland hay meadows are characterised by species-rich swards containing frequent Red fescue *Festuca rubra*, Crested dog’s-tail *Cynosurus cristatus*, Meadow foxtail *Alopecurus pratensis*, Great burnet *Sanguisorba officinalis*, Meadowsweet *Filipendula ulmaria* and Meadow buttercup *Ranunculus acris*. They also provide an important habitat in the UK for Fritillary *Fritillaria meleagris*. The main vegetation type occurring at Portholme is included in the “Natural and semi-natural grassland formations” section of the habitats for selection under the European Union Habitats Directive. It corresponds to National Vegetation Classification type, Mesotrophic Grasslands (MG4) -*Alopecurus pratensis* - *Sanguisorba officinalis* grassland.

**Figure 04.** Distribution of Lowland Hay Meadows in the Great Britain. Circles show the approximate location of the five Areas of Special Conservation



**Distribution.** The vegetation type is restricted in the UK. It occurs almost entirely in central and southern England, with a few scattered sites along the Welsh borders (Figure 04). It covers less than 1,500 ha, surviving in scattered and mostly small sites. Particularly important concentrations occur in the valley of the River Thames and its tributaries, and in the Vale of York Rivers, especially the Derwent (Figure 04).

The meadow flora of Portholme was obviously rich and as far back as 1586 William Camden in his “*Britannia*” the first ever published topographical survey of the whole British Isles, county-by-county described it thus:

*“It was from these Castle hils, where there is a goodly prospect a great way off, a man may*

*behold below a meadow which they call Portsholme, environed round about with the river Ouse, the same verie exceeding large, and of all others that the sunne ever shone upon most fresh and beautiful, whereof in the spring time this may be truely said:*

- “*The pleasant spring faire floures doth yeeld;*
- *O divers colours, in this field.*” (Camden 1607).

Whilst this may be something of an exaggeration nowadays, it is still exceedingly rich with many attractive meadow plants. These include many typical plants of neutral grasslands as well as a number with a local distribution. In total there are over two hundred plants recorded from Portholme. Of these one hundred and five are found on the meadow and include species of both dry and wet conditions. The former include:

Lady’s bedstraw *Galium verum*;  
Marsh ragwort *Senecio aquaticus*;  
Meadow crane’s-bill *Geranium  
pratense*;

Pepper-saxifrage *Silaum silaus*;  
Pignut *Conopodium majus*;  
Sneezewort *Achillea ptarmica*;  
Yellow-rattle *Rhinanthus minor*.

The latter are restricted to a wet hollow near the entrance to the site from Godmanchester where Water dock *Rumex hydrolapathum*, the handsome Flowering rush *Butomus umbellatus* and Cuckooflower *Cardamine pratensis*.

There are two rare species on Portholme: Narrow-leaved water dropwort *Oenanthe silaifolia*, a rather non-descript plant only discovered in 1997 and Fritillary *Fritillaria meleagris* an extremely attractive species, first recorded in 1926. The population increased dramatically in recent years with the number of flowering spikes reaching over 1,000 in 2005 and 2006. Following the very wet and prolonged spell in the early part of 2007 when the site remained flooded for many weeks, the number of flowering spikes dropped considerably. Outlying colonies of the species appear to have expanded into the higher and drier parts of the site. Widespread in England and Wales the plant is now lost from about two thirds of its original sites. Portholme is the only site for the species in the old county of Huntingdonshire.

*Animals.* Portholme is an important site for a number of bird species. Notable amongst these is a small, but thriving population of breeding corn bunting, displaced from many of the more intensively farmed areas of Cambridgeshire. It can be seen and heard singing (a call that sounds like jangling keys), on the pylons and wires in the centre of the site. At any time of the year, especially in autumn and spring pied wagtails, goldfinches feeding on the abundant Hardheads *Centaurea nigra*, meadow pipits, grey wagtails and skylarks are amongst the other passerines present.

Winter flooding also attracts waders, ducks and gulls. Species such as northern lapwing, golden plover, wigeon and black-headed gulls are, sometimes measured in their thousands. Other less common species also appear on the site taking advantage of the rich feeding, including black-tailed godwit. Fieldfares and redwings, winter visitors nesting in Scandinavia, also feed on invertebrates brought to the surface when water levels are near

the surface, but not flooded. The species, in the same family as the song thrush, appear in flocks of several hundred. They use Portholme as one of many fuelling stops prior to their northward migration in early spring. Very little information is available for other animals. Several rare invertebrates include three rare flies and a rare dragonfly. Occasionally, uncommon butterflies such as the clouded yellow can be seen flying over the site and the horsefly is plentiful!

**Management.** This is perhaps the most important aspect of this site and closely links traditional agricultural use with its nature conservation features valued at national and European levels. The fact that the site has not been subject to intensive agricultural use, including ploughing or from the extensive application of artificial fertilizers, has allowed a number of herbs, lost from other permanent but ‘improved’ grassland, to survive. The pattern of management (detailed above) and described in 1772, was probably largely a continuation of a much older pattern. This continues today with a hay crop and aftermath grazing forming the basis of management.

The ‘main roadways’ are cut prior to the sale and in accordance with the pattern shown on the 1772 enclosure map. The prescription for timing and stock levels is also very similar to those laid down by the Enclosure Act and described above. Today cattle and sheep often graze the site together although strictly speaking they should graze the site at different times of the year. In 2005 and 2006 the sheep were joined by a unusual visitor, a red deer. The hay crop and aftermath grazing are sold each year at auction by (Alexanders Auctioneers, Huntingdon) on or around the 15<sup>th</sup> June.

### **Conclusions**

Today, the London Angling Society, which receives the proceeds of the sale of hay and aftermath grazing, owns most of the site. The Thomas Miller Charity also owns a small portion of the meadow totalling about 4 acres. This derives from a will of 1681, when Thomas Miller left to “the Town of Brampton” three parcels of land on Port Holme the rent from which should be paid to the Minister of the Parish every year for preaching a sermon on New Year’s Day and the rest to be distributed to the poor in Easter Week.

The surviving nature conservation values of Portholme rest on two key features of the site:

1. The historical pattern of use involving traditional patterns of cutting for hay coupled with aftermath grazing helps to ensure that succession to coarse grassland and eventually wet scrub does not happen;
2. Flooding has restricted its use for intensive agriculture, as an airfield or for other uses involving extensive or intensive activity. At the same time flooding provides a means of naturally fertilising the soil without the need for artificial fertilizers to sustain a valuable hay crop.

Portholme Meadow, designated by Natural England (formerly English Nature) as a Site of Special Scientific Interest under Section 28 of the Wildlife and Countryside Act 1981 is an example of a ‘lowland hay meadow’. It is one of only five sites identified as being

of international importance under the European Union 'Habitats' Directive as a Special Area of Conservation for this vegetation type. The designations help protect the site from damaging developments and ensure the maintenance of the nature conservation value of the site. Restrictions include a ban on the use of all artificial fertilisers or herbicides (except for spot spraying dock). The nature conservation designations are also likely to deter developments such as gravel extraction and even road building.

A recent decision to put back the date for beginning haymaking by two weeks to the 1<sup>st</sup> July (to improve the chances for nesting birds and allow seed set) has been reversed. It seems that the traditional pattern of management, in place for at least 250 years and possibly much longer, has helped ensure the meadow continues to be one of "*the largest and most flowery spot the sun ever beheld*" (Camden 1607).

Portholme has a fascinating history. The seeds of its protection and management stretch back nearly 1,000 years. It seems likely that the traditional management of the site for hay and grazing by domestic stock will continue. The implications of global warming and in particular the incidence and duration of flooding are not so clear.

In the past flooding in winter was the norm. Pepys refers to Portholme being flooded in May 1668, which seems unusually late. An early photograph from 1903 shows the site to be completely flooding up to and including the surrounds of the racecourse grand stand, still present at that time. 'Bank-full' data from the Environment Agency confirm the pattern of inundation. Periods when the site is partly flooded for a few days occur most often. More extreme events are less frequent, but the winters of 2000/1, 2003/4 and 2006/7, when particularly prolonged events occurred. These reflect an increasing pattern of more extreme weather predicted by global warming. The winter of 2001/2 was particularly dry. Note that not all events result in the complete coverage of the site, although the floods of 1903 and in 2006/7 were two such.

Spring appears to have been the most common period when flooding occurred. In recent years, (1993 onwards) anecdotal information, from a former English Nature Conservation Officer, suggests that there has been an increase in autumn flooding, notably in 2000. Coupled with a tendency for the duration of flooding to increase, this has led to adverse changes taking place in the vegetation. The longer periods of inundation seen in recent years, cause 'die-back' in flood-sensitive species. Additional nutrients favour coarser grasses and herbs, at the expense of some of the less common species. Curled dock *Rumex crispus*, in particular, seems to have responded to the long period of flooding in 2000/1 and subsequently. This resulted in it becoming visually dominant over much of the northeastern part of the site, to the detriment of both the meadow plants and the value of the hay crop.

The survey of fritillary and particularly the five-fold reduction in flowering spikes in 2007 suggest that prolonged water logging can adversely affect even on a species tolerant of periodic flooding. It remains to be seen whether the population recovers. However, what ever happens, there is a clear message that the survival of this meadow is more dependent than ever on decisions taken in relation to water management along the whole

of the River Ouse. The role of the Environment Agency is vital in this respect, particularly in the face of the increased rainfall predicted as one of the consequences of global warming. It is rather ironic that flooding, which has helped to protect and sustain the meadows botanical interest over centuries, should become possibly one of its greatest threats.

Access to the site is from Huntingdon, Godmanchester and via a lane that passes under the London to Edinburgh railway line from Broomholme Lane. Three footpaths creating a triangle across the meadow join these access points. Although there are no fences and people can wander across the meadow without hindrance, generally when the hay crop is growing people keep to the footpaths.

This article is derived partly from a 22 page illustrated booklet on the meadow, which includes a full plant species list. It is available from the author (Doody 2007) Price £2.99.

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